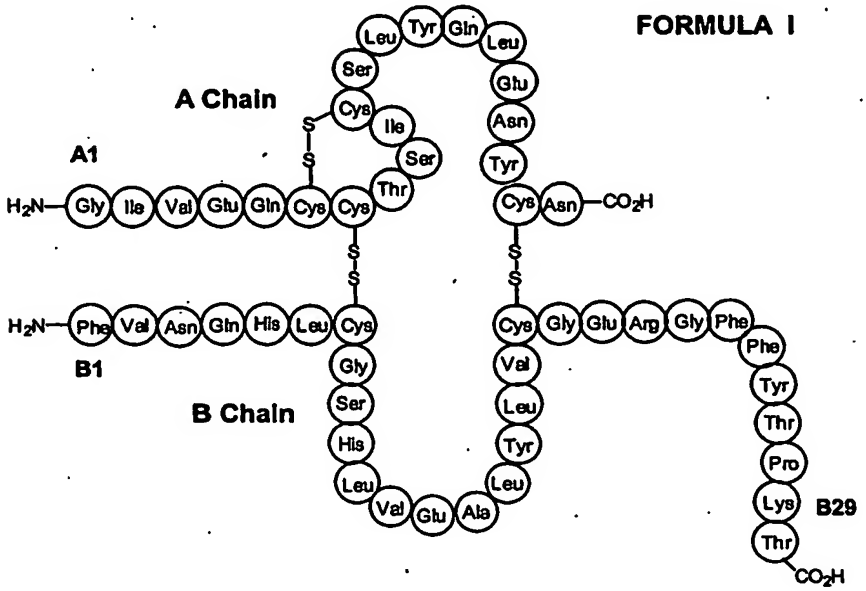
WHAT IS CLAIMED IS:

1. An insulin derivative comprising an insulin molecule and a reactive group for covalently bonding a blood component.

2. The insulin derivative of claim 1, wherein the insulin molecule is of formula I:



and the reactive group is coupled to an amino acid of the insulin molecule at a position selected from the positions Gly A1, Phe B1 and Lys B29.

3. The insulin derivative of claim 1 or 2, wherein the reactive group is selected from the group consisting of Michael acceptor, a succinimidyl-containing group and a maleimido-containing group.

4. The insulin derivative of claim 3, wherein the Michael acceptor is an α,β, unsaturated carbonyl moiety.

5. The insulin derivative of claim 1 or 2, wherein the reactive group is a maleimido-containing group.

6. The insulin derivative of claim 1 or 2, wherein the reactive group is 3-Maleimidopropionic acid (MPA).

7. The insulin derivative of any one of claims 1 to 6, wherein the reactive group is coupled to an amino acid of the insulin molecule via a linker.

8. The insulin derivative of claim 7, wherein said linker is selected from the group consisting of (2-amino) ethoxy acetic acid (AEA), ethylenediamine (EDA), amino ethoxy ethoxy succinimic acid (AEES), AEES-AEES, 2-[2-(2-amino)ethoxy)] ethoxy acetic acid (AEEA), AEEA-AEEA, $-NH_2-(CH_2)_n-COOH$ where n is an integer between 1 and 20 and alkyl chain (C1-C10) motif and combination thereof.

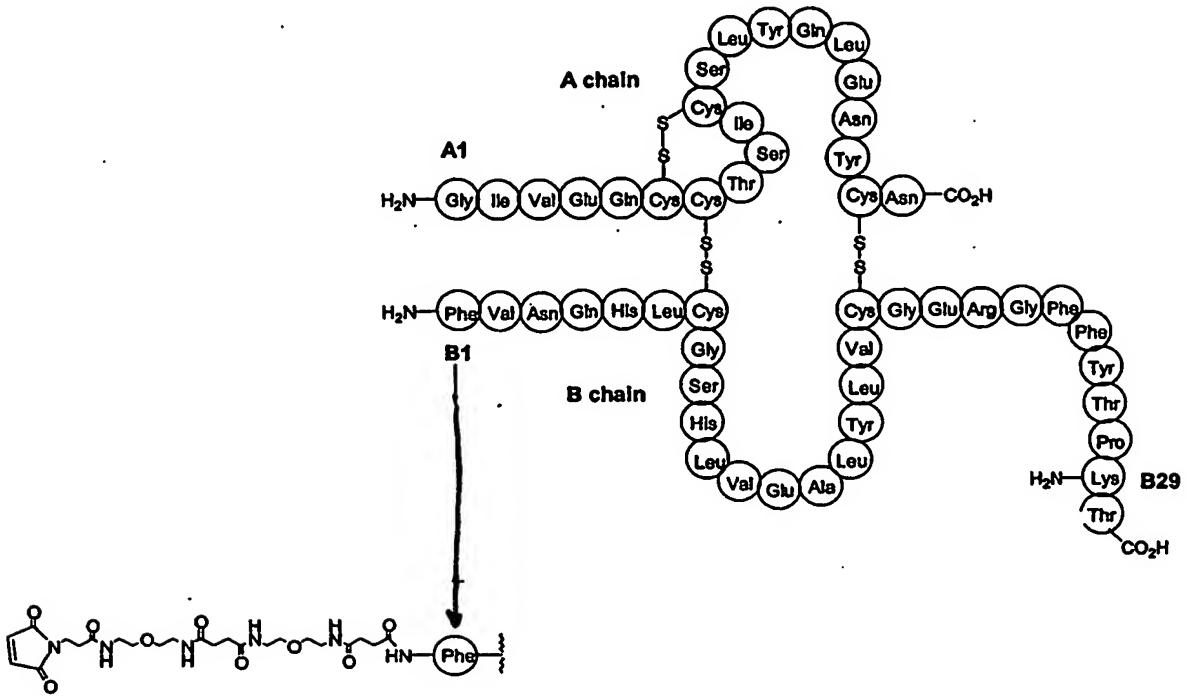
9. The insulin derivative of claim 8, wherein said alkyl chain (C1-C10) motif is one or more alkyl chains (C1-C10) saturated or unsaturated in which could be incorporated oxygen nitrogen or sulfur atoms.

10. The insulin derivative of claim 9, wherein said alkyl chain is selected from the group consisting of glycine, 3-aminopropionic acid (APA), 8-aminooctanoic acid (AOA) and 4-aminobenzoic acid (APhA).

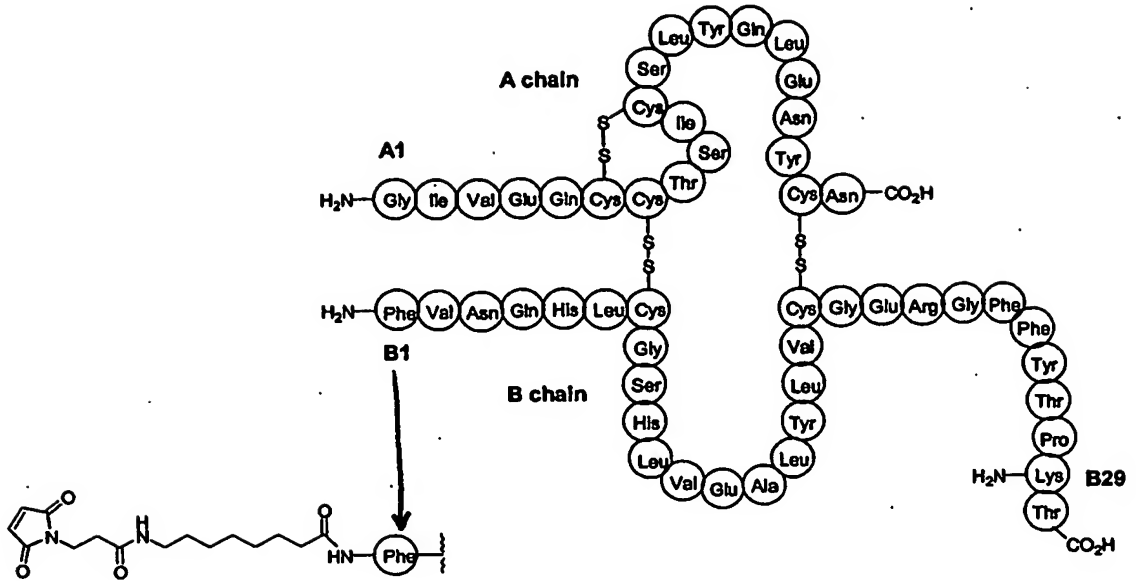
11. The insulin derivative of claim 8, wherein said combination is selected from the group consisting of AEEA-EDA, AEEA-AEEA and AEA-AEEA.

12. The insulin derivative of claim 6, wherein said linker is $-NH_2-(CH_2)_7-COOH$.

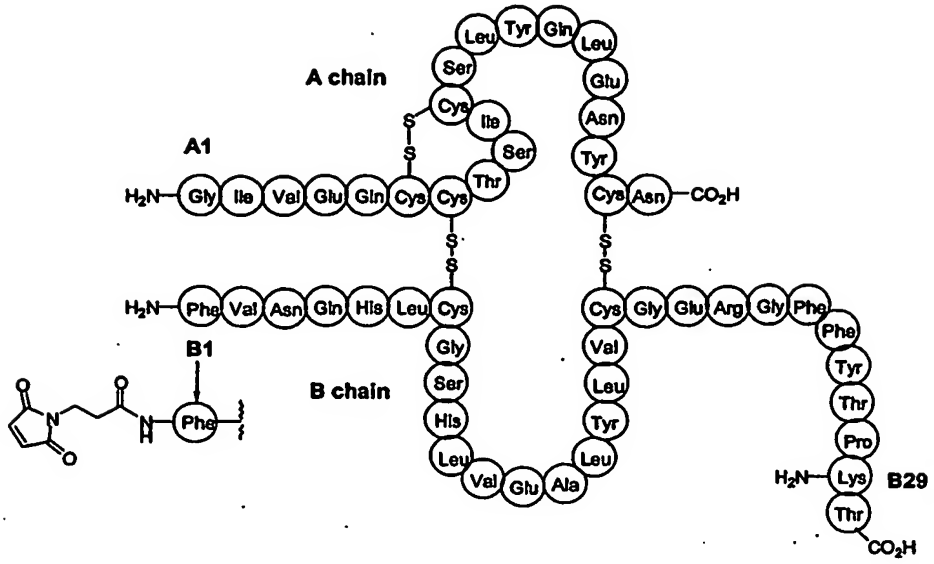
13. The insulin derivative of claim 1 having the formula:



14. The insulin derivative of claim 1, having the formula:



15. The insulin derivative of claim 1, having the formula:



16. The insulin derivative of claim 1, wherein said blood component is a blood protein.

17. The insulin derivative of claim 16, wherein said blood protein is serum albumin.

18. An insulin conjugate comprising an insulin derivative according to any one of claims 1 to 17 and a blood component, wherein the reactive group and the blood component are conjugated through a covalent bond formed between said reactive group and said blood component.

19. The insulin conjugate of claim 18, wherein the blood component is a blood protein.

20. The insulin conjugate of claim 19, wherein the blood protein is serum albumin.

21. The insulin conjugate of claim 18, wherein said conjugate was formed *ex vivo*.

22. A pharmaceutical composition comprising the insulin derivative of any one of claims 1 to 17 in association with a pharmaceutically acceptable carrier.

23. A pharmaceutical composition comprising the insulin conjugate of any one of claims 18 to 21 in association with a pharmaceutically acceptable carrier.

24. A method for treating a glycaemic-related disease or disorder in a subject suffering from said glycaemic-related disease or disorder, comprising administering the insulin derivative of any one of claims 1 to 17 to said subject.

25. The method according to claim 24, wherein said glycaemic-related disease is selected from the group consisting of diabetes of type I,

diabetes of type II, gestational diabetes, cystic fibrosis, polycystic ovary syndrome and pancreatitis.

26. The method according to claim 24, wherein the glycaemic-related disease is selected from the group consisting of diabetes of type I and diabetes of type II.

27. A method for treating a glycaemic-related disease or disorder, comprising the administration of the insulin conjugate of any one of claims 18 to 21.

28. The method according to claim 27, wherein said glycaemic-related disease is selected from the group consisting of diabetes of type I, diabetes of type II, gestational diabetes, cystic fibrosis, polycystic ovary syndrome and pancreatitis.

29. The method according to claim 27, wherein the glycaemic-related disease is selected from the group consisting of diabetes of type I and diabetes of type II.

30. A method for treating a glycaemic-related disease or disorder, comprising the administration of the pharmaceutical composition of any one of claims 22 and 23.

31. The method according to claim 30, wherein said glycaemic-related disease is selected from the group consisting of diabetes of type I, diabetes of type II, gestational diabetes, cystic fibrosis, polycystic ovary syndrome and pancreatitis.

32. The method according to claim 30, wherein the glycaemic-related disease is selected from the group consisting of diabetes of type I and diabetes of type II.

33. Use of the derivative of any one of claims 1 to 17, for the preparation of a medicament for the treatment of a glycaemic-related disease or disorder.

34. The use as claimed in claim 33, wherein said glycaemic-related disease is selected from the group consisting of diabetes of type I, diabetes of type II, gestational diabetes, cystic fibrosis, polycystic ovary syndrome and pancreatitis.

35. The use as claimed in claim 33, wherein the glycaemic-related disease is selected from the group consisting of diabetes of type I and diabetes of type II.

36. Use of the conjugate of any one of claims 18 to 19, for the preparation of a medicament for the treatment of a glycaemic-related disease or disorder.

37. The use as claimed in claim 36, wherein said glycaemic-related disease is selected from the group consisting of diabetes of type I, diabetes of type II, gestational diabetes, cystic fibrosis, polycystic ovary syndrome and pancreatitis.

38. The use as claimed in claim 37, wherein the glycaemic-related disease is selected from the group consisting of diabetes of type I and diabetes of type II.